# Economic Impact of the Expiration of The SLA

## An Empirical Analysis

# Economic theory predicts the likely effects of the SLA

- The SLA was a tariff-rate quota.
- If the level of imports is such that the tariff is assessed, as happened with the SLA, economic theory makes strong predictions about a tariff-rate quota's likely effects.
- A tariff-rate quota generally will increase the price of imports and reduce their volume.

# Estimating the SLA's effects using published elasticities

- The effects of the SLA depend on the elasticities of demand and supply.

- Estimates of those elasticities are available and can be used in a simulation model.

- Given reasonable estimates of these elasticities, it appears that the expiration of the SLA would reduce the price of Canadian imports by 15% and increase their volume by 12%.

- These results are not sensitive to the assumed values of the elasticities. Estimating the model with different elasticities continues to show substantial price and volume effects.

# Estimating a reduced-form model of the effects of the SLA

- A reduced-form model is one where the price of lumber is expressed as a function of variables that affect demand and supply without estimating a full structural model.

- The model estimated here is very similar to one used in a previous study by Zhang. We have updated it to include the entire SLA period and improved the data and specification.

- To test the sensitivity of the results, several specifications of the model were estimated.

# Results of reduced-form model

- The results of every specification indicate that the SLA had a positive and significant effect on the price of lumber.
    - The basic linear model specification shows the SLA increased prices by about $88 per thousand board feet or 22%.
    - Other model specifications show slightly higher price increases.

- The estimated SLA coefficient is significant at the 1% level in all specifications.

- The results suggest that the price effect of the SLA is likely as large or larger than the 15% price effect suggested by the simulation results.

# Cointegration analysis also shows the effects of the SLA

- Cointegration analysis can be used to assess whether Canadian softwood exports to the US respond differently to US demand changes during the period of the SLA.

- We estimated similar reduced-form models of Canadian export trade before and during the SLA.

- We compared performance of the models before and during the SLA.

# Results of the cointegration analysis

- The results suggest that the responsiveness of Canadian softwood lumber exports to US demand factors was different when the SLA was not in effect.

  ➤ Excess demand factors accounted for more of the variation in Canadian exports in the pre-SLA period (61%) than in the SLA period (39%).

  ➤ Exports made a slower adjustment towards equilibrium quantities during the SLA period than pre-SLA.

# Export supply curve estimation

- We also estimated a supply function for imports of Canadian lumber.
- This model shows how the SLA affected the quantity of Canadian exports shipped to the United States.
- This approach is distinct from that of the reduced-form model, which estimated the SLA's effects on US price, and the cointegration model, which measured how the SLA affected the response of Canadian exports to changes in US demand.

# Results of estimating a supply function

- Both a linear and a logarithmic model were estimated and both found, at the 10% level of significance, that the SLA reduced US imports of softwood lumber from Canada.

- The linear model showed that the SLA reduced the volume of exports of Canadian softwood lumber to the United States by over 978 million board feet a year or 5%. The logarithmic model suggests a slightly higher reduction in exports of Canadian lumber to the United States, 7%.

- Thus, this model shows that the SLA's expiration would have a substantial effect on the volume of U.S. imports of Canadian softwood lumber.

# EI's Empirical Results are Consistent with Previous Estimates of SLA Effect

| | EI Simulation (base case) | EI Reduced Form | EI Export Supply | Zhang | Lindsey | Fukuda |
|---|---|---|---|---|---|---|
| Volume of Canadian Imports | 12% | - | 5% | 17% | - | - |
| Lumber Price | 15% ($42/MBF) | 22% ($88/MBF) | - | 16% ($59/MBF) | 15-25% ($50-$80/MBF) | 15% |